

SEQUENCE LISTING



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<110> Schneider, Thomas D.
Hengen, Paul N.
The Government of the United States of America
as represented by The Secretary of the
Department of Health and Human Services

<120> Molecular Computing Elements: Gates and Flip-Flops

<130> 015280-332100US

<140> US 09/601,561
<141> 2000-12-15

<150> US 60/075,468
<151> 1998-02-20

<150> WO PCT/US99/03469
<151> 1999-02-17

<160> 19

A6 <170> PatentIn Ver. 2.1

<210> 1
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:consensus
sequence of early model of Factor for Inversion
Stimulation (Fis) binding site

<400> 1
ttgstcaaaa ttgascaaa 20

<210> 2
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:paired Factor
for Inversion Stimulation (Fis) binding sites with
11 bp spacing; overlap 11

<400> 2
tattctttgc tcaaaatttg atcaaatttt gagcaaagaa ta 42

<210> 3
<211> 38
<212> DNA
<213> Artificial Sequence

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<220>
 <223> Description of Artificial Sequence:paired Factor
 for Inversion Stimulation (Fis) binding sites with
 7 bp spacing; overlap 7

 <400> 3
 aggccttttgc tcaaagttta aactttgagc aaaagcct 38

 <210> 4
 <211> 15
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:sequence logo
 for Factor for Inversion Stimulation (Fis) binding
 site
 Cb
 <400> 4
 gctcaaaatt tgatc 15

 <210> 5
 <211> 58
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:Factor for
 Inversion Stimulation (Fis) binding sites
 separated by 23 bp; separated 23

 <400> 5
 ggaattcttt gctcaaaatt tgatcaggat cctgatcaaa ttttgagcaa agaattcc 58

 <210> 6
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:18.1 bit Fis
 site
 <400> 6
 tttgctcaaa attgatcaa a 21

 <210> 7
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:18.1 bit Fis
 site
 <400> 7
 tttgatcaaa ttttgagcaa a 21

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<210> 8
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:12.7 bit Fis
site

<400> 8
tttgctcaaa gtttaaactt t

21

<210> 9
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:12.7 bit Fis
site

<400> 9
aaagttaa ctttgagcaa a

21

<210> 10
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:15.0 bit Fis
site

<400> 10
tttgctcaaa atttgatcag g

21

<210> 11
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:15.0 bit Fis
site

<400> 11
cctgatcaaa ttttgagcaa a

21

<210> 12
<211> 46
<212> DNA
<213> Escherichia coli

<220>
<223> origin of replication (oriC)

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<400> 12
gttatcacac actcaaaaac tgaacaacag ttgttctttg gataac

46

<210> 13
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Fis site
separated by 11 bases; 9.1 bit Fis site

<400> 13
gaacaacagt tggtc

15

<210> 14
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Fis site
separated by 11 bases; 8.4 bit Fis site

<400> 14
actcaaaaac tgaac

15

<210> 15
<211> 113
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:synthesized
single very long nucleic acid with hairpin loop
DNA

<400> 15
aacgggatcc actcaaaaac tgaacaacag ttgttcgaat tcttcgagcg atcggcgaag 60
cggatcgctc gaggaattcg aacaactggt gtccagtttt tgagtggatc ccg 113

<210> 16
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:8.4 bit Fis
site

<400> 16
tcactcaaa aactgaacaa c

21

<210> 17
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:10.0 bit Fis
site

<400> 17
actgaacaac agttgttcga a

21

<210> 18
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
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site

<400> 18
ttcgaacaac tgttgttcag t

21

<210> 19
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:8.4 bit Fis
site

<400> 19
gttggttcagt ttttgagtgg a

21

Q6
conc

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